



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY 25 1982

MEMORANDUM

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

SUBJECT: EPA Reg. Nos. 464-EUP-TA. and 464-EUP-TL. Chlorpyrifos
on cotton.

FROM: Andrew Rathman, Chemist *AR*
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Hazard Evaluation Division (TS-769)

THRU: Charles L. Trichilo, Chief *CT*
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

TO: Jay Ellenberger, Product Manager #12
Insecticide-Rodenticide Branch
Registration Division (TS-767)

Dow Chemical is requesting experimental use permits for two new formulations of chlorpyrifos to be used on cotton. A permanent tolerance has been established for residues of the insecticide chlorpyrifos and its metabolite 3,5,6-trichloro-2-pyridinol in or on cottonseed at 0.5 ppm as a result of PP#6F1673.

464-EUP-TA requests a total of 1440 lbs ai to treat 490 acres of cotton in the states of Arizona, California and Mississippi. 464-EUP-TL requests a total of 880 lbs ai to treat 180 acres of cotton in Arizona and Mississippi.

The manufacturing process, fate of the chemical in plants and animals and the analytical methods have been discussed in previous RCB reviews and present no problems with these EUP's.

Formulations

Both products are EC's containing 2 lbs chlorpyrifos/gallon.

Product XRM-4656 (464-EUP-TA) contains 22.9% chlorpyrifos, 1.5% related components of the active.

INERT INGREDIENT INFORMATION IS NOT INCLUDED

Product XRM-4666 (464-EUP-TL) contains 23.2% chlorpyrifos, [REDACTED]

All the inerts in both formulations are cleared under Sec. 180.1001.

Proposed Use

For both products the use is identical, i.e., 1-2 pints (0.25-0.5 lb ai) per acre as is (undiluted) or mixed with 1-3 parts of water, using suitable low-volume aerial or ground equipment. Multiple applications are permitted with no PHI. There is no restriction against the feeding of cotton forage.

The currently registered use permits up to 1 lb ai/A (multiple applications) with a 14 day PHI. In addition there is a restriction against feeding treated forage.

Residue Data

No data are available in either of these submission. Data reflecting application of chlorpyrifos nine times at 1 lb ai/A (2X rate) to cotton with samples of cottonseed taken at 0, 3, 7 and 14 days after the last treatment are available in PP#6F1673. This study shows residues of chlorpyrifos (and its metabolite) in cottonseed ranging from 1.8-2 ppm at 0 day, 0.7-1.1 ppm at 3 days and less than 0.2 ppm at 7 and 14 days post-treatment.

While we have no similar data reflecting 0.5 lb ai/A, the available data indicate that the established tolerance would be exceeded at zero days. If the Company were to impose a 7 day PHI, we could then conclude that the established tolerance would be adequate to cover these new uses.

In addition, the label should be revised to include a restriction against feeding cotton forage.

Conclusions and Recommendation

The available data indicate that the use proposed here may result in residues in or on cottonseed that exceed the established tolerance level of 0.5 ppm. If the Company were to impose a 7 day PHI and restrictions against the feeding of cotton forage, we could recommend for these EUP's.

cc: Amended use file, Circu, R.F., Rathman, Subject file
 RDI:Section Head:RJH>Date:5/17/82:RDS>Date:5/17/82
 TS-769:RCB:Reviewer:ARRathman:LDT:X77324:CM:#2:RM:810>Date:5/24/82